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A-S

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
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08/782,866 01/13/97 DELABASTITA

P GV-2166

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IM62/0830

EXAMINER

ANGEBRANDT, M

ART UNIT

PAPER NUMBER

1756

35

DATE MAILED:

08/30/00

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

Office Action Summary

Application No.
08/782,866

Applicant(s)

Delabatista et al.

Examiner
Martin J. Angebrandt

Group Art Unit
1756



☒ Responsive to communication(s) filed on Jun 2, 2000

☐ This action is **FINAL**.

☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

A shortened statutory period for response to this action is set to expire three month(s), or thirty days, whichever is longer, from the mailing date of this communication. Failure to respond within the period for response will cause the application to become abandoned. (35 U.S.C. § 133). Extensions of time may be obtained under the provisions of 37 CFR 1.136(a).

Disposition of Claims

☒ Claim(s) 1-8 and 10-12 is/are pending in the application.

Of the above, claim(s) _____ is/are withdrawn from consideration.

☐ Claim(s) _____ is/are allowed.

☒ Claim(s) 1, 4-8, and 10-12 is/are rejected.

☒ Claim(s) 2 and 3 is/are objected to.

☐ Claims _____ are subject to restriction or election requirement.

Application Papers

☐ See the attached Notice of Draftsperson's Patent Drawing Review, PTO-948.

☐ The drawing(s) filed on _____ is/are objected to by the Examiner.

☐ The proposed drawing correction, filed on _____ is ☐ approved ☐ disapproved.

☐ The specification is objected to by the Examiner.

☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119

☒ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).

☒ All ☐ Some* ☐ None of the CERTIFIED copies of the priority documents have been
☐ received.

☒ received in Application No. (Series Code/Serial Number) 08/227,075.

☐ received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

*Certified copies not received: _____

☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

Attachment(s)

☒ Notice of References Cited, PTO-892

☐ Information Disclosure Statement(s), PTO-1449, Paper No(s). _____

☐ Interview Summary, PTO-413

☐ Notice of Draftsperson's Patent Drawing Review, PTO-948

☐ Notice of Informal Patent Application, PTO-152

--- SEE OFFICE ACTION ON THE FOLLOWING PAGES ---

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1 The response provided by the applicant has been read and given careful consideration. Responses to the arguments raised by the applicants are provided after the rejection they are directed to. The specification should be amended to include references to the parent applications (ie 08/542,095) and their status which is --, now abandoned-- after the reference to the parent application.

2 Claim 10 did not appear in the body of the office action and the applicant assumed, contrary to the PTO 326 cover sheet, that claim 10 was allowable. This is not the case and claim 10 is grouped with claim 8 upon which it is directly dependent and prosecution reopened to allow the applicant a better understanding of the examiner's position. If the applicant has any points which need clarification in the future, the applicant is invited to contact the examiner at the number below. Prosecution is reopened and finality withdrawn.

3 The following is a quotation of 35 U.S.C. § 103 which forms the basis for all obviousness rejections set forth in this Office action:

A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Subject matter developed by another person, which qualifies as prior art only under subsection (f) or (g) of section 102 of this title, shall not preclude patentability under this section where the subject matter and the claimed invention were, at the time the invention was made, owned by the same person or subject to an obligation of assignment to the same person.

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4 Claims 1,4,6,7 and 11-12 are rejected under 35 U.S.C. § 103 as being unpatentable over either Saikawa et al. '811 or Monbaliu et al. '156, in view of Stoffel et al. (1981).

Saikawa et al. '811 teaches the use of a laser or LED to expose a diffusion transfer which is developed using an alkaline processing solution. Examples of light sources are disclosed. col 1/lines 60-63, hereinafter 1/60-63, 2/32-42 and 2/55-65) These include the low coats CW He-Ne laser. The laser exposure with a He-Ne laser used a 10^{-5} second exposure which is indicative of digital/electronic control or modulation of the beam as the He-Ne is a CW(not pulsed) laser .(example 1, column 8/line 54).

Monbaliu et al. '156 teaches the use of conventional sources, laser or LEDs for exposing silver diffusion media to form lithographic printing plates. (col 10/line 66-col 11/line 35, hereinafter 10/66-11/35). The processing is described in the abstract and claims as well as the text. The LED and semiconductor lasers conventionally have a digital controller as they may be modulated directly through control of the power to them without the use of a separate electrooptic modulator or the like.

Stoffel et al. '(1981) teaches various techniques for use in scanning and screening images such as photographs and camera images to produce halftone images which are useful with binary output devices such as lithography, xerography or ink jet printers. (Page 1898/col 1/paragraphs 1-2). Pages 1907,1908,1915,1916 and tables I & II describe the process of error diffusion and the benefits. The output of all the images including the original output is from a versatec plotter. (page 1908/right column section G) The input of the image into a scanner, the electronic

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processing of the image and the output marking are shown in figure 1. The output marking is clearly not provided through a mask or the like.

It would have been obvious to one skilled in the art to include frequency modulation screening techniques such as error diffusion taught by Stoffel et al. '(1981) in the techniques of producing printing plates disclosed by either Saikawa et al. '811 or Monbaliu et al. '156 with a reasonable expectation of gaining the benefits taught by Stoffel et al. '(1981), based upon the disclosure of Stoffel et al. '(1981) that this technique is applicable to lithography.

The applicant argues that apart from the fact that lithography covers the computer-to-plate techniques, the use of it with frequency modulation is new and inventive. The applicant admits that Stoffel et al. specifically states that the use of the algorithms described are compatible with lithography, although optimization is not specifically discussed with respect to each. The examiner holds this to support his position, not that of the applicant. Further the penultimate statement cited only points out to one of ordinary skill in the art that proper registration is necessary to avoid tone scale errors. The applicant does not exclude this registration process and it is generally recognized to be important in constructing multicolor images by those in the printing industry. Also the passage cited earlier by the applicant makes it clear that this is an overview and some optimization is required for each process it can be used with for it to reach its full potential. The examiner holds that this does not point away from the invention, but reminds one of ordinary skill in the art that these techniques are particularly registration sensitive. The examiner notes that passages cited by the applicant specifically point out the described techniques

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are general to the processes that they are taught as useful with and not directed to any particular process. The examiner maintains the rejection for the above reasons.

The applicant did not send the citations as indicated in the preamendment filed October 12, 1995. The applicant argues that neither of Saikawa et al. '811 or Monbaliu et al. '156 teach the use of screened data as the output of the laser exposure pattern and argues that both Saikawa et al. '811 and Monbaliu et al. '156 are non-analogous to Stoffel et al. '(1981). **While Saikawa et al. '811 uses a physical masking element with the laser exposure process, the obvious digital control of the laser through the extremely short exposure period is also disclosed (8/54). The use of screening seems to be implied in Monbaliu et al. '156, but it is not clear if the screening is for the exposure or the densitometry measurement. (17/52-56). Further the Monbaliu et al. '156, but the LED and semiconductor lasers described are directly digitally modulated by the power applied to the laser itself. Secondly, the first portion, ie the scanning of the image and screening of the data and the direct output of that data is fully disclosed by Stoffel et al. '(1981) as is its use in "lithography" set forth on page 1898 column 1, paragraph 2, line 3.** The same terminology is used by both Saikawa et al. '811 and Monbaliu et al. '156 in their abstracts, therefore establishing a linkage between the arts and motivation to combine the teachings of Stoffel et al. '(1981) with those of the lithographic arts, including Saikawa et al. '811 and Monbaliu et al. '156. Additionally, the use of lithography as an binary output device is disclosed by Stoffel et al. Clearly, the laser exposure processes of both Saikawa et al. '811 and Monbaliu et al. '156 represent output devices. The examiner has relied

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upon the secondary reference to provide the motivation for the combination of these references.

In Heidelberger Druckmaschinen A.G. v. Hantscho Commercial products the fields of endeavor are clearly different relating to printing presses, sheet metal working and compressors. No such divergence exists here all of the art is directed to producing images. Therefore, this citation is neither as relevant or persuasive as the applicant would have it be. As set forth in the above citation on page 1377, "whether a reference is 'analogous art' is a question of fact". With respect to In re Geiger, the basis of obviousness of the combination of ingredients from three different references was at issue and from the passage in the second column of page 1278, it appears that no direction was provided to the other components. In the instant application ample direction is found within Stoffel et al., which directs on to the lithographic arts. While it does not specifically mention the complete recitation of the remaining portions of the claims, when doing so the examiner holds that one of ordinary skill in the art would be directed to lithographic printing plates and their manufacture based upon the teachings of the binary marking/display technologies section as well as the citation of "printing technologies-**lithography**, ..." within that section. As the only way in which lithographic printing may be preformed is with a lithographic printing plate, the examiner holds that one of ordinary skill in the art would immediately recognize that this reference does direct one of ordinary skill in the art to the formation of lithographic printing plates as direct writing of the image onto the final page does not constitute lithography. The rejection is therefore maintained for these reasons.

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The applicant argues that none of the references except Stoffel et al. '(1981) teach frequency modulation screening techniques and Monbaliu et al. '156 teaches autotypical screening and therefore teaches away from the claimed invention. The applicant argues that the examiner is merely picking and choosing references without a basis for combination. The examiner disagrees noting that the use of these screening techniques in lithography is taught in Stoffel et al. (1981) and specific benefits are disclosed for error diffusion as disclosed on page 1909 over other screening and thresholding methods. The examiner holds that one would expect these benefits for any of the techniques which are disclosed as useful with these types of screening and holds that this provides sufficient motivation for its use in processes which use these techniques. Specifically, Stoffel et al. (1981) teaches the benefits over periodic screening techniques in high frequency rendition in particular. Stoffel et al. (1981) would be expected to make a showing of each of the techniques and compare them in one format, but comparisons for each and every technique would not be expected as nothing would be added by this and it would consist of mere repetition of the same benefits. Also note that gravure and lithography are both printing techniques and therefore the arguments on page 4, while more relevant than the others, is not found persuasive. Concerning the content of chapter VI, particular binary output means are not described here, but the effect of the various screening techniques is. The output means are noted in this chapter and the "input" is the sum of the information/picture/image and the screening technique used. This is not to be confused with the true input which would merely be the information/picture/image. The fact that error diffusion is a frequency modulation screening

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process does not prevent it from being used as to generate halftone images for printing images which closely resemble the continuous original, indeed that is exactly what the applicant uses it for. If the applicant has realized benefits other than those of the Stoffel et al. (1981) reference, then please come forward with them and these may provide a basis for patentability over the prior art. It is true that Stoffel et al. (1981) covers quite a bit of ground, but all of the techniques produce halftone images as approximations of continuous tone images and lithography is among them. The output devices of the references other than Stoffel et al. (1981) are considered to be the print plates, the lasers are considered the devices used to produce these, are easily modulated in binary fashion and are used in this manner to produce the images on the printing plate substrates as the printing plates will only be binary (ink receptive/ink repellant). The examiner considers the broad disclosure of Stoffel et al. (1981) as evidence of the flexibility of the technique and based on this does not find reason not to connect this with lithography based upon the disclosure to use this and other screening techniques with lithography.

In responses to the arguments offered in the amendment of 8/16/99, The examiner relies upon the previous responses and notes that the Stoffel reference, specifically states that "Although lithography, xerography, etc., have different microstructural characteristics, the algorithms investigated below are compatible in varying degrees *with all of them* . The optimization of the different marking processes, however will not be reviewed." Which sets forth that the intention of the document is to teach the processes and their advantages with respect to one or two particular imaging systems so that they can be compared, but not belabor these with repetition. (1899/left

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column under "summary") The applicant argues that they have discovered different advantages than those disclosed. The applicant has not shown the criticality of the choice of lithography and that the benefit arises from the combination of the screening technique with the lithographic printing process.

In response to the arguments offered by the applicant, these have previously addressed, but the examiner clarified a few points previously made noting that the direct output is taught by Stoffel, the He-Ne of Saikawa et al. '811 has an extremely short exposure which is indicative of digital/electronic control and Monbaliu et al. '156 prefers semiconductor lasers or LEDs the output of which is controlled directly at the laser head. The rejection stands for the reasons above.

5 Claims 1,4,5,7 and 11-12 are rejected under 35 U.S.C. § 103 as being unpatentable over Peterson '762, in view of Stoffel et al. '(1981).

Peterson '762 establishes that it is known to use a laser to form a lithographic printing plate. The process uses a mixture of a diazo composition with nitrocellulose and carbon black. The carbon black absorbs light converting it heat and heating the nitrocellulose until it combusts, removing it from the support surface. The formation of letterpress printing plates is also disclosed. The process appears to be a direct writing without a mask using the YAG pulsed laser as no mask is described. Therefore the beam modulation and direction must be controlled electronically/digitally.

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It would have been obvious to one skilled in the art to include frequency modulation screening techniques such as error diffusion taught by Stoffel et al. '(1981) in the techniques of producing printing plates disclosed by Peterson '762 with a reasonable expectation of gaining the benefits taught by Stoffel et al. '(1981), based upon the disclosure of Stoffel et al. '(1981) that this technique is applicable to lithographic, letterpress and gravure printing.

See the response provided in paragraph 4 above. The examiner also directs the applicant to the teachings of relief printing in the binary marking/display technologies section as well as the citation of "printing technologies-lithography, Letterpress and gravure ..." within the halftone imagery section and notes the use of direct laser marking by Peterson '762.

6 Claims 1, 4-8 and 10-12 are rejected under 35 U.S.C. § 103 as being unpatentable over either Saikawa et al. '811, Peterson '762 or Monbaliu et al. '156, in view of Stoffel et al. (1981), Harper's Dictionary of the Graphic Arts (1963), Evans et al. '229 and Ellis et al. '650.

Harper's Dictionary of the Graphic Arts defines a "proof" as "A trial printing ..from type, plates or blocks, pulled for the purpose of correction before printing." and a "press proof" as "The last proofs to be run before the form is run on the press."

Evans et al. '229 teaches the need for a proof prior to the printing run. (1/18-34) The use of sublimation transfer printing processes to form a direct digital color proof is disclosed. (1/43-2/20 and 10/44-14/68, including the examples, where the stock is chosen to match that used in the printing process.

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Ellis et al. '650 teaches the use of ablation imaging materials for pre-press proofing.
(11/56-58 and examples 1 and 2)

For the purposes of examination, the examiner has held that a process which does not directly produce the proof using exclusively digital means is not a direct digital proofing technique. The examiner holds that although the process of producing proofs from the printing plates is partially digital, the last steps (ie inking and pulling) are not digital and therefore the process is not a DDP technique.

It would have been obvious to use produce a proof prior to the printing run using known techniques, such as those disclosed by Harper's Dictionary of the Graphic Arts (1963), Evans et al. '229 or Ellis et al. '650, in the process for producing a printing plate using the process of either Saikawa et al. '811, Peterson '762 or Monbaliu et al. '156, as modified by Stoffel et al. (1981) based upon this being entirely routine within the art as evidenced by the teachings of Harper's Dictionary of the Graphic Arts (1963), Evans et al. '229 and Ellis et al. '650.

The response provided above is relied upon here without further comment as no further arguments were directed at this rejection beyond those addressed above in any of the responses filed including the appeal brief at page 16.

7 Claims 1, 4-8 and 10-12 are rejected under 35 U.S.C. § 103 as being unpatentable over either Saikawa et al. '811, Peterson '762 or Monbaliu et al. '156, in view of Stoffel et al. (1981), Harper's Dictionary of the Graphic Arts (1963), Evans et al. '229 and Ellis et al. '650, further in view of Newman '925.

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Newman '925 establishes that as of filing in 1984, the ability to produce direct laser addressable plates has been an appreciated market need. This allows for computer generated images, including computer generated characters, computerized copy editing, and computerized screening of continuous tone pictures. These may be pre-viewed on a CRT of the like. This contributes savings in time, errors and expense. (1/26-40) Example 34 uses a laser diode (semiconductor laser) with scanning capabilities to expose with dwell times of 5×10^{-6} seconds.

In addition to the basis for the combination of either Saikawa et al. '811, Peterson '762 or Monbaliu et al. '156 with Stoffel et al. (1981), Harper's Dictionary of the Graphic Arts (1963), Evans et al. '229 and Ellis et al. '650 discussed above, Newman '925 provides further recognition of the direction into the art from mechanical mask to direct laser writing of printing plates with savings in several areas and specifically describes screening of continuous tone images as one of the benefits of the electronic direct writing process as well as the pre-viewing of the image in 1984 and thereby supports within the art, the position of the examiner.

8 Claims 2-3 are objected to as they contain allowable subject matter, but are dependent upon a rejected claim.

9 Any inquiry concerning this communication or earlier communications from the examiner should be directed to Martin Angebrannndt whose telephone number is (703) 308-4397.

I am normally available between 7:30 AM and 5:00 PM, Monday through Thursday and 7:30 AM and 4:00 PM on alternate Fridays.

If repeated attempts to reach me are unsuccessful, my supervisor may be reached at (703) 308-4552.

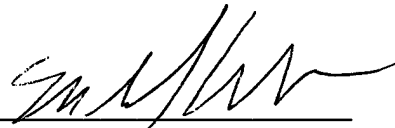
Serial Number: 08/782866

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Facsimile correspondence should be directed to (703) 305-3599.

Any inquiry of a general nature or relating to the status of this application should be directed to the Group receptionist whose telephone number is (703) 308-0661.

A handwritten signature in black ink, appearing to read 'M. Angebranndt', written over a horizontal line.

Martin J. Angebranndt
Primary Examiner, Group 1750
August 28, 2000